

# Technical Services

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## Job Profiles



government agencies and private organizations regarding the use of Crown land for various purposes such as breakwalls, docks, trailer parks and restaurants. The Lands Technician deals with these requests.

Often, field inspections are carried out to determine whether a proposed use of Crown land will harm any of the resources that are the ministry's responsibility. Good written and oral communication skills are vital. The well-being of all pertinent ministry programs must be weighed against each application.

Although your work takes you outdoors, much of your time is spent in the office studying maps and interpreting legislation concerning the disposition of Crown land. Therefore, tact and good judgment when dealing with the public and other staff are extremely important.

### Electronics Technician

The communications system is a central part of the operation and safety of almost all programs of the Ministry of Natural Resources. It is a complex system. Breakdowns or ineffectiveness could cause lost time or possible loss of life or property, especially during fire or flood emergencies.

As an Electronics Technician you must have a thorough knowledge of the theory, principles and practices of telecommunications technology.

You look after our electronic equipment and transmission systems including marine navigational and communications equipment located on ministry patrol and fisheries research vessels (e.g. radar, depth finders, HF and VHF radio telephones and transceivers, antennas, ground systems).

The knowledge required can normally be gained by completing an established electronics course and should be developed with demonstrated experience in the telecommunications field.

Confident speaking ability is an asset as you will be asked to train staff to operate radio and telex equipment and transmit messages according to correct procedures. Analytical skills will help you

come up with alternatives for network systems and select new locations for radio towers.

### Engineering Technologist

Here is another field important to the Ministry of Natural Resources that was traditionally staffed by men but is now opening to women.

Engineering Technologists collect and organize information for projects such as roads and dams. You complete surface and groundwater studies, terrain analyses, land use surveys and conduct surveys of soil and rock conditions.

Normally, graduation from a three year engineering technology course at a community college, with experience in surveying, engineering, geology, drafting and general construction is required for this type of job.

A knowledge of surveying, engineering and drafting is essential as you might be required to supervise survey crews, measure property boundaries and prepare working drawings for different projects. With your general knowledge of construction practices, you will be expected to draw up materials lists and cost estimates for projects, as well as assist contractors in interpreting drawings. Inspections of construction projects to make sure the plans are being followed properly could become an added responsibility.

### Pits and Quarries Inspector

In this job your frequent inspections of pits and quarries are a major component of Ontario's mineral resource management program.

Enforcement of The Pits and Quarries Control Act is your primary activity. When the rules and regulations of the act are not followed, the pit operator may be charged. That makes a court appearance by you necessary. This position requires good written and oral communication skills - attributes that are valuable when dealing with questions and complaints from the public about gravel pits and quarries operating in their area.

Walking to the sites for inspection often involves going through bush and mud. About 75 per cent of your time is spent in the field and 25 per cent in the office. Your office duties include receiving applications and issuing permits to allow pit and quarry operations. You might also audit company books.

Graduation from an approved community college or university course in resource management, geology or geography is usually required. Additional experience with the Ministry of Natural Resources as an assistant pit and quarry inspector would also be to your advantage.

### Petroleum Resources Inspector

It's an energy conscious age and a time in Ontario's development when making use of oil and natural gas resources is a priority. Although Ontario's petroleum reserves are certainly not on the scale of those in Canada's western provinces, the recovery of them is nonetheless important.

Petroleum Resources Inspectors rapidly become involved in the dynamics of petroleum exploration and extraction. On any given day, you may be monitoring the gas flow from a farm well or from a drilling rig in Lake Erie.

An inspector monitors all private production operations in order to make sure they meet provincial regulations for safety, waste disposal and overall protection of the environment. As a result, you work closely with the petroleum industry, both at the wellhead and in the office reviewing applications for drilling licences. The job usually requires a lot of travel in the field.

Before entering this career, you normally obtain a degree in geology or geography or graduate from a technical school in one of these fields. This will allow you to work in the petroleum industry where valuable work experience can be gained.

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## **Introduction to Ministry of Natural Resources Technical Services**

The Ontario Ministry of Natural Resources realizes that women are making up an increasingly significant part of the work force. We welcome them and encourage them to join our team.

This ministry provides a wide variety of services for the people of Ontario. Among other responsibilities, we create opportunities for outdoor recreation and manage the province's natural resources. Our major task is to continue to keep our programs running smoothly and headed in the right direction. Acting as a technical support system is the role that falls on the shoulders of our Technical Services personnel.

The Technical Services people concentrate on such problems as resource-use planning and legislation enforcement. Often these people are sent out to what we term, the field, to collect information for study. This term can be misleading, because in our ministry it could mean going to a drilling rig in the middle of Lake Erie. Technical jobs are far from ordinary.

Unless otherwise indicated, a two year diploma from a community college in the appropriate resource management field is highly recommended. You are encouraged to obtain as much training and experience as you can.

### **Conservation Officer**

By taking care of Ontario's fish and wildlife resources, the Conservation Officer is the nearest position to policeman within the Ministry of Natural Resources. The Game and Fish Act, The Migratory Birds Convention Act, The Fisheries Act and Ontario Fisheries Regulations are only a few of the acts and regulations that must be enforced. At the same time, you must be firm, tactful, and fair-minded in your dealings with the public, as well as knowledgeable about the law, the proper methods of investigation and courtroom procedures.

You are involved in more than law enforcement. Other projects include wildlife inventories, assisting biologists with management programs, checking fish and game harvests and collecting fish and animal samples for scientific study. You might also have to live-trap problem animals for removal to another area, help catch fish for stocking and egg production, or fight fires during the peak forest fire season. Tough work!

Depending on local circumstances, you might work as a member of a team or alone. You should enjoy nature as you could be in the field for days at a time. Conservation Officers work primarily outside, in all types of weather, at all times of day, in all seasons. In addition, you might be required to give talks to a variety of school and public groups regarding conservation methods in Ontario. Experience and training as a Fish and Wildlife Technician will help you move into this job.

### **Forestry Technician**

Forestry continues to be one of Canada's most important industries. Therefore, the Forestry Technician's assistance in managing Ontario's forest resources is significant.

The work varies according to the location and requirements of the job. In the north, you might prepare forest inventories and forest maps or scale timber. On the other hand, with limited Crown lands in southern Ontario, you might find yourself working with the forest resources on private lands. Such work might include sizing up woodlots for The Woodlands Improvement Act programs, giving advice for windbreaks, thinning out old trees or planting new ones. Your forestry or resource management training will also help you during tree marking outings for commercial cutting and seed collections.

Naturally, each outdoor career has good and bad points. To choose this as a career you should enjoy working with nature. The ability to carry out field duties is a must.

### **Fire Control Technician**

The threat to Ontario's forested areas by fire is mammoth. Each year thousands of hectares of wooded land are lost in this manner. The Ministry of Natural Resources recruits resource management program graduates as Fire Control Technicians to help reduce the loss of this valuable resource.

During the spring and summer months, as a Fire Control Technician you supervise and give technical guidance to fire crews in the field. Depending on the fire season, you might be required to be in the field for extended periods of time. The ability to work in light aircraft is a necessity.

Supervisory and leadership skills are as important as being in good physical condition. You must also have the ability to speak and write well.

You have duties other than forest fire fighting which can include preparing fire reports, assisting in fire prevention programs, carrying out necessary burn-offs, checking fire suppression equipment and making minor repairs. In the off season, when fire is not such a hazard, you might be helping other ministry divisions with projects such as road construction, building maintenance and campsite upgrading.

### **Fish and Wildlife Technician**

Fish and Wildlife Technicians generally work with either fisheries or wildlife and sometimes with both. In many instances the work varies as the seasons change.

The duties of a Fish and Wildlife Technician also vary across the province, depending on the local fish and wildlife resources and local concerns. Typical fisheries projects include tagging fish, surveying lakes and streams, taking a creel census, and conducting habitat improvement projects. Wildlife work might include conducting population studies and hunter surveys.

As many of a technician's duties are performed in the field, you might be asked to spend several

days a week outdoors. A Fish and Wildlife Technician must also assist with various office programs including licence issuing, hunter safety testing, scale and tooth observation to determine age, moose and deer hide collecting, report writing and answering general inquiries.

### **Park Technician**

The province of Ontario has more than 160 provincial parks that provide outdoor recreation opportunities. The Park Technician is responsible for keeping these parks organized and properly maintained.

As with any job dealing with the public, you must be even-tempered, patient, capable of making sound judgments, and must get along well with other people. Public relations is an important part of your work.

You assist with all aspects of the park's operation including the supervision of park security, gate staff and maintenance staff. Familiarity with provincial park legislation is also a requirement.

An educational background that includes knowledge of resource management in forestry or fish and wildlife is an asset. A diploma from a community college in recreation technology usually includes this.

As a Park Technician, you might be asked to help monitor wildlife populations within the park or take an animal census. Or you might be put in charge of a waterfowl management unit for recreational hunting.

Think of an activity you once observed or participated in at a provincial park. It was a Park Technician's responsibility to manage it.

### **Lands Technician**

The administration of Crown land, that 87 per cent of Ontario owned by the province, requires a lot of care. The land must be managed with the good of the general public, present and future, in mind. A Lands Technician performs a valuable function in carrying out his role.

The Ministry of Natural Resources receives applications from members of the public,